

3.—Two New Western Australian Cockroaches

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I received recently from Mr. Athol M. Douglas, of the Western Australian Museum, a small lot of cockroaches for identification. These cockroaches had been collected partly in caves partly in mines and although but two species were represented they proved to be new to science. For the opportunity to study them I wish to express my gratitude to Mr. A. M. Douglas.

Shawella douglasi, sp. nov.

♂ (holotype), Western Australia, Jurien Bay, Limestone Caves (30° 17'S, 115° E), IX. 1958 (associated with the droppings of small cave dwelling bats *Eptesicus pumilus*), A. M. Douglas leg. (W. Aust. Mus.); 3 larvae, the same data (W. Aust. Mus. and Lund Mus.).

♂. Light brown with rather weakly chitinated integument. Eyes somewhat reduced (they are rather narrow with acute apices instead of rounded). Maxillary palpi and antennae rather long. Pronotum flat. Tegmina slightly overlapping in the middle of dorsum and reaching with their rounded apices to the 4th tergite; subcosta provided with rami anteriores in its distal part. Wings vestigial, reaching with their apices to the 2nd tergite. The 1st tergite with a well developed glandular area. Supra-anal plate (Fig. 1) quadrangular, with rounded latero-caudal angles; its caudal margin rather heavily spined and mesally slightly emarginate. Hypandrium (Fig. 1) considerably exceeding the supra-anal plate, markedly asymmetrically developed; the right style is somewhat larger than the left one and is situated about on the median line, while the left style is strictly confined to the left side of the plate; the upper surface of

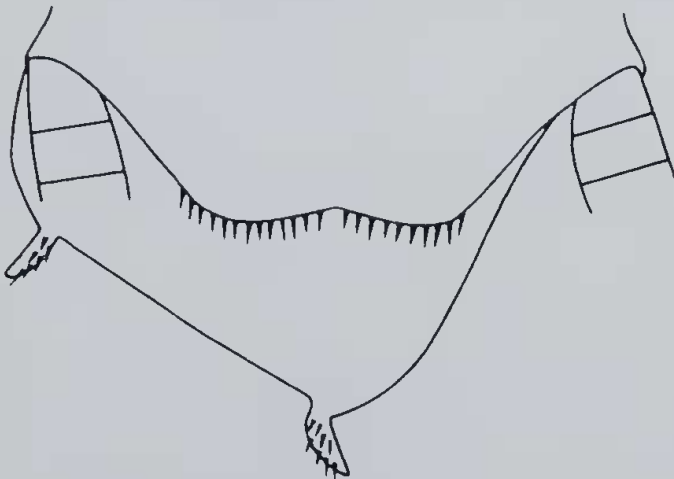


Fig. 1.—*Shawella douglasi* sp. nov., ♂ (holotype).
Apex of abdomen from above.

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both the styles is heavily spined. Legs rather long, heavily spined. Lower anterior margin of front femora armed after type A† and bearing 3 heavy distal spines. Pulvilli lacking. Tarsal claws symmetrical, unspecialized. Small arolia present. Length of body 17.5 mm; length of pronotum 4.5 mm; width of pronotum 5 mm; length of tegmina 9 mm.

The female of *S. douglasi* is still unknown. The new species differs from *S. coulouana* (Sauss.) in the absence of pulvilli as well as in the moderately reduced eyes and the asymmetrically situated styles (in *S. coulouana* they are symmetrically arranged). Also the male supra-anal plate in both the species is quite distinct. I suppose *S. douglasi* to be a true guanobie, although there are some characters, such as the weak pigmentation and chitination of the integument as well as the reduced eyes, which might indicate a development leading to the troglobies.

Paratemnopteryx atra, sp. nov.

5 ♂♂ (holotype and paratypes) and 4 ♀♀ (paratypes), Western Australia, Marble Bar (21° 07' S, 119° 41' E), 10. X 1957 (collected deep in mines on piles of dung of the bat *Macroderma gigas*), A. M. Douglas leg. (W. Aust. Mus. and Lund Mus.); 1 ♀ and 1 larva, the same data (W. Aust. Mus.).

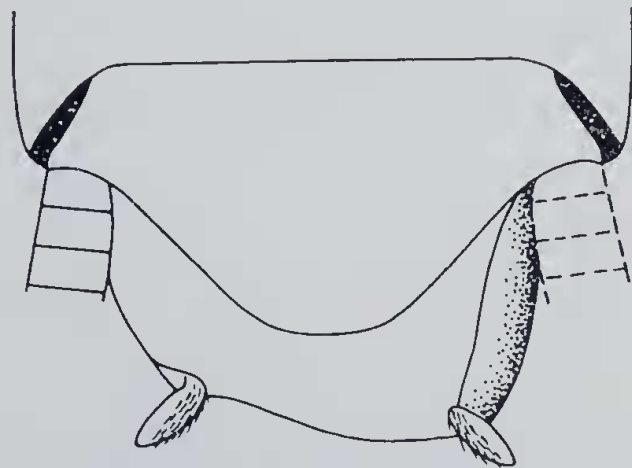


Fig. 2.—*Paratemnopteryx atra* sp. nov., ♂ (holotype).
Apex of abdomen from above.

♂. Piceous. Eyes well developed. Maxillary palpi rather long. Pronotum flat. Tegmina not quite reaching to the apex of abdomen, although otherwise normally developed, i.e. not truncate; subcosta with rami anteriores in its apical part. Wings reduced to narrow pads, reaching with their apices to the 3rd tergite. Dorsum of

† Editorial note: for explanation of type A see Bruijning, C.F.A. (1948).—“Studies on Malayan Blattidae.” p. 33 (Brill: Leiden.)

abdomen unspecialized. Supra-anal plate as figured (Fig. 2), with rounded apex. Hypan-drium ample, provided with two nearly sym-metrically situated styles (Fig. 2) and with the right margin usually rolled upwards; the upper surface of both the styles rather densely spined. Legs heavily spined. Lower anterior margin of front femora armed after type A and provided with 3 heavy distal spines. Tarsal claws sym-metrical, unspecialized; pulvilli and arolia none. Length of body 19-25.5 mm; length of pronotum 7-7.5 mm; width of pronotum 9.5-10 mm; length of tegmina 16-18 mm.

♀. More robust than the male. Supra-anal plate generally as in the male but the apex more or less emarginate. Subgenital plate ample, scoop-like, with the hind margin slightly con-vex. Otherwise as the male. Length of body 23.5-26.5 mm; length of pronotum 7.5-9 mm; width of pronotum 10-12 mm; length of tegmina 17-17.5 mm.

P. atra differs from the 3 previously known species of *Paratemnopteryx*, i.e. *P. australis* Sauss., *P. blattoides* Tepp, and *P. rufa* (Tepp.), in its normally developed, non-truncate tegmina. It is obviously a true guanobie.